

and after having induced the undersigned to pay a fee for filing an excess number of independent claims. When the Examiner searches for new citations to reject claims indicated as being allowable, the notification of allowance was unfairly communicated. The undersigned intends to file a petition for having incurred the fee for filing the independent claims in response to a notification of allowability that is now withdrawn after searching for new art.

With respect to claims 5 and 15, the Official Action cites Yamamoto, and states,

"The use of 'power' contacts in combination with signal contacts are [sic] old and well known in the art."

This ground of rejection is respectively traversed, since in the REMARKS accompanying the previous amendment, paper number 4, the undersigned stated:

"Further no attention is directed to the features of the power contacts recited in these claims [claims 5 and 15]. The features speak for themselves, since no prior art is available that requires the features to be distinguished by argument."

The examination is piecemeal, for not citing a reference in paper number 3 that would have disclosed a combination of power contacts with other contacts in a connector, and subsequently, in paper number 5, for citing Yamamoto without pointing out any feature in Yamamoto that is being relied upon for a rejection of the features recited in claims 5 and 15.

The Yamamoto reference discloses pin shaped contacts 32, 80, and socket type contacts 36, 82. The structural features recited in each of Applicant's claims 5 and 15, comprise, an insulative divider separating one of the contacts from another of the contacts of each pair of the

contacts, at least one conductive power contact having a pair of contact fingers on opposite sides of the divider, the contact fingers having a surface area sufficiently broad to radiate heat from electrical power dissipation, and the fingers extending parallel to the contacts.

Neither the Yamamoto pins nor the Yamamoto sockets has contact fingers on opposite sides of an insulative divider.

Each of Claims 8 and 18 are separately patentable, and recites the wiping surfaces covering front tips of the contacts. In Buchter the contacts are in recesses, but are not covered. This remark is repeated from paper number 4, and is applicable to the citation of Asick combined with Buchter et al. In the newly cited reference Asick, the contact 80 extends past the cam profiles 78 and to a front edge of a circuit board 60. Also, the contact is uncovered, especially at a front edge of the circuit board 60, where a front of the contact 80 is narrowed, so as to extend between the cam profiles 78, and not to be covered by the cam profiles 78. The narrowed front of the contact 80 is particularly shown in Fig. 5. One skilled would not have been suggested by Asick that the front tips of the contacts in Buchter et al. or Olsson or Roberts are to be covered.

With respect to claims 10 and 20, VanDijk is cited in a rejection of claims 10 and 20, the rejection stating:

"It also would have been obvious ... to provide contacts having raised conductive surfaces for the APA devices in view of VanDijk's teaching of contact 2 having raised conductive surfaces."

In response, the rejection ignores the recital of features in each of claims 10 and 20, specifically, "... wherein, the conductive surfaces are raised with respect to edge margins of the contacts received in grooves in the housing." The contact 2 of VanDijk is not combined with a housing, and would not have been suggestive to one skilled

to provide, conductive surfaces that are raised with respect to edge margins of the contacts received in grooves in the housing. The entire contact 80 of Asick is along a simple groove 72, which would not have suggested to one skilled a feature of conductive surfaces that are raised with respect to edge margins of the contacts received in grooves in the housing. In Roberts the contact 46 is in a simple trough like recess 37, which would not have suggested to one skilled a feature of conductive surfaces that are raised with respect to edge margins of the contacts received in grooves in the housing. In Olsson the entire base section 52 of a contact is in a simple channel 20, which would not have suggested to one skilled a feature of conductive surfaces that are raised with respect to edge margins of the contacts received in grooves in the housing. In Buchter et al, the entirety of the contacts are along channels 80, which would not have suggested to one skilled a feature of conductive surfaces that are raised with respect to edge margins of the contacts received in grooves in the housing. The Official Action misinterprets the claims to mean that raised conductive surfaces is the only feature being claimed in the claims 10 and 20.

Each of Claim 2, 6, 7, 12, 16 and 17 is separately patentable because, no reference or combination of references teaches wiping surfaces being offset laterally with respect to rearwardly located surfaces of contacts, and being interposed between such contacts and a front of a housing. In Buchter the surfaces of the contacts and the lifting surfaces 100 coextend when in alignment with one another, and are not offset laterally with respect to one another. The previous sentence is copied from the previously submitted paper number 4. The citation of Asick with multiple references previously of record does not contradict or render moot the previous sentence. The position taken in the Official Action that the arguments

are moot, is erroneous, since the references are being relied upon in a new rejection for the same reasons as in a previous rejection of record. Thereby, the previously filed REMARKS opposing those same reasons remain pertinent, and are not moot. In the newly cited reference Asick, the contact 80 extends past the cam profiles 78 to a front edge of a circuit board 60. One skilled would not have interpreted Asick to teach that the cam profiles 78 are interposed between the contact 80 and a front of the circuit board 60.

Each of Claims 3 and 13 is separately patentable for reciting a connector housing with wiping surfaces in alignment with edge margins of contacts and offset from conductive surface areas of the contacts. In the rejection of previously allowed claims 3 and 13, Roberts and Olsson and Buchter et al. are relied upon as primary references. Roberts and Olsson were of record, but were not relied upon in a previous rejection of claims that have remained without amendment. The Official Action does not point out any distinguishing feature in Roberts and Olsson that would have been combined with Asick in any way different than the combination of Buchter et al. with Asick. The Official Action does not describe a distinguishing feature in each of Roberts and Olsson that would make them applicable as primary references, without being cumulative of Buchter et al. Accordingly, the rejection based on the combination of Asick with Roberts and Olsson is cumulative of the rejection based on the combination of Asick with Buchter et al.

With respect to claim 13, in Olsson the channels 20 containing the contacts 52 extend into the front edge of the connector housing 4, which would not have suggested to one skilled a feature of a conductive shield surrounding the mating end of the housing, and the wiping surfaces being closer to the shield than the contacts.

In Roberts, Fig. 9, the trough like recess 37 extends into a front edge of the connector housing portion 22, which would not have suggested to one skilled a feature of a conductive shield surrounding the mating end of the housing, and the wiping surfaces being closer to the shield than the contacts.


In Asick the conductive contact 80 extends past the insulating cam profiles 78 to a front edge of a circuit board 60. Asick would have taught one skilled to provide cam profiles 78 with conductive contacts 80 extending past the cam profiles 78 and being closer to the shield 84 than the insulating cam profiles 78. Thus, one skilled would have been taught to modify Buchter et al. with contacts being closer to a shield than insulating cam profiles.

Claim 3 recites that the contacts engage unwiped surface areas of mating contacts. In Buchter et al., Figs. 5A, 5B, 5C, the mating contacts 40' wipe insulating material 100 in front of the contacts 82. The only way in which the prior art teaches that unwiped surfaces will be attained, is by extending the contacts 80 past the cam profiles 78, as taught by Asick. Claim 3 recites wiping surfaces above a flange on a mating end of the housing, and the contacts being rearward of the flange. Thus, claim 3 is the only teaching of attaining unwiped contact surfaces on mating contacts when a flange on mating end of a housing provides ESD protection for contacts.

In view of the foregoing remarks, and in view of the applicable remarks previously of record and erroneously dismissed as being moot, reconsideration is requested.

Respectfully submitted,

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